UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

May 24, 2010

MEMORANDUM FOR: A.I.S., Inc.
East West Technical Services (EWTS),
MRAG Americas,
At-Sea Monitors (ASMs),
Northeast Fisheries Observer Program (NEFOP) Observers

FROM: Amy S. Van Atten
Branch Chief, Fisheries Sampling Branch (FSB)

SUBJECT: Electronic Monitoring Pilot Study Information

The purpose of this pilot study is to explore the use of Electronic Monitoring System (EMS) technology to collect real time catch data in the Northeast multispecies groundfish fleet. Amendment 16 of the NE multispecies fisheries management plan states "…Sectors would be required to develop an adequate independent third party at-sea/electronic monitoring program beginning in FY 2012". To satisfy this requirement, the Fisheries Sampling Branch (FSB) has entered into an agreement with Archipelago Marine Research, Ltd. to initiate a pilot study.

EMS has been proposed as an alternative to traditional data gathering and/or catch monitoring methods and is expected to help meet increased monitoring needs. EMS has produced high quality, cost-effective data in a variety of locations and fisheries throughout the world. EMS uses a combination of closed circuit cameras and sensors to capture fishing activity in order to quantify catch. This coverage would augment other data collection programs, such as human observers at-sea. The pilot study was initiated May 1, 2010, with the start of the groundfish fishing year. The pilot may be extended up to 36 months depending on the quality and quantity of data collected during the initial 12 month period. Volunteer fishing vessels, interested in exploring this technology, will be contacted to participate in this study.

A technician provided by Archipelago will examine each interested vessel prior to equipment installation. This examination will ensure that interested vessels are suitable for equipment installation (power requirements, vessel size and design, etc). Archipelago staff and vessel owners will work together to modify vessel configuration as necessary. Following installation, each EMS system will be kept on board participating vessels until sufficient data has been gathered (up to 12 months) or low effort levels result in equipment transfer to an alternate vessel. Archipelago will supply all hardware associated with the cameras and sensors.

The cameras used in this EMS system are programmed to turn on at the beginning of each fishing event and turn off following the end of each fishing event (including processing time). A

percentage of the footage from each fishing trip will be reviewed by Archipelago and FSB staff. Footage should be clear, uninterrupted, and complete. The equipment will require minimal maintenance by the vessel crew. In the event that an equipment failure occurs at sea the vessel will not be required to return to port. Archipelago field staff will be available to troubleshoot any equipment difficulties or configuration issues. Participating vessels will be compensated upon collection of quality video footage.

Archipelago, in association with FSB, will be conducting a series of EMS outreach meetings open to industry and other interested parties throughout the duration of the study. The purpose of these meetings will be to introduce EMS technology to interested participants, solicit feedback from study participants about the function and utility of EMS, address any concerns, answer questions from prospective volunteers, and share study results.

NEFOP observers and ASMs will have limited responsibilities related to EMS. Be aware of the location of cameras and avoid obstructing cameras when possible. NEFOP/ASM duties take precedence over avoiding obstruction of cameras, specifically on limited trips. If the captain and crew are discarding in a certain location, discard any sampled fish in this location as well. Also be aware of winch or hydraulic sensors and avoid interaction with this equipment. At no time will you be required to troubleshoot problems with the cameras or associated equipment; this is the sole responsibility of the captain/crew or FSB staff. When uploading data from your IPAQ on trips made with EMS (see cheatsheet for a list of participating vessels), note this by checking the 'EMS Used' box on the Observer Upload webpage. Outside of these requirements, complete all NEFOP/ASM duties as you would on any other trip. Check with your program manager for a current listing of vessels participating in this study.

Expected benefits of this pilot study include the production of cost-effective data produced with minimal invasion of privacy and inconvenience. Data from traditional sources will be compared to pilot study results to determine EMS's effectiveness.

If you have any questions concerning the study please contact Amy Van Atten at 508-495-2266, or email Amy.Van.Atten@noaa.gov or Nichole Rossi at 508-495-2128 or email Nichole.Rossi@noaa.gov. Kelly Neville and Glenn Chamberlain are working on this study by reviewing data collected by the EMS equipment and acting as field technicians. While visiting Tech Park, feel free to check in with them on the progress and/or interim findings of the study.

Attachments:
EMS Cheatsheet